

CLAIM AMENDMENTS

1-20 (canceled)

21. (currently amended) A method for balancing the load of an internal combustion engine among the cylinders of the engine, which engine is provided with a cylinder specific antiknock control system, wherein the method comprises the steps of

monitoring each cylinder to find out whether the cylinder knocks continuously by utilising cylinder specific measuring data provided by the antiknock control system,

reducing the quantity of fuel supplied to a knocking cylinder permanently if the knock is continuous,

compensating the change in the total output of the engine caused by said reduction of fuel supply by increasing the fuel supply to ~~the~~ all cylinders of the engine,

storing the new cylinder specific fuel supply values, and

setting the new cylinder specific fuel supply values as cylinder specific set values of engine.

22. (previously presented) A method according to claim 21, wherein in the cylinder specific monitoring it is counted how many times within a predetermined time period the cylinder specific antiknock control system needs to initiate an adjustment that endures at least one control period in order to reduce the quantity of fuel supplied to the knocking cylinder.

23. (previously presented) A method according to claim 22, wherein the time period, during which the times are counted, is 20-40 minutes.

24. (previously presented) A method according to claim 22, wherein a cylinder is defined as continuously knocking, when a certain number of times is reached in the counting.

25. (previously presented) A method according to claim 23, wherein the certain number of times reached in the counting is 15 - 25 times.

26. (previously presented) A method according to claim 21, wherein in the compensation a balancing vector including cylinder specific fuel supply coefficients is used, the aim being to keep the vector sum at the balancing value or close to the balancing value, whereby the effect of the decrease of one coefficient is compensated by increasing the coefficients for the all cylinders.

27. (previously presented) A method according to claim 21, wherein for an engine that is equipped with cylinder specific measuring of exhaust gas temperature, the method may comprise a step, in which the quantity of fuel supplied to the cylinder is increased in response to a fall of temperature down to a certain level or below that, while measuring the exhaust gas temperature.

28. (previously presented) A method according to claim 27, wherein the quantity of the fuel is increased by 1%, when the temperature of the exhaust gas is 60° below the average.

29. (previously presented) A method according to claim 21, wherein in the cylinder specific antiknock control system the quantity of fuel supplied to the cylinder is either reduced by 1% every fifth second or increased by 1% every seventh second, in response to the measuring data.

30. (previously presented) A method according to claim 21, wherein the fuel is a gas.

31. (previously presented) A method according to claim 30, wherein in an engine, where besides a gas a light fuel oil may be used as a fuel, the gas used by the engine is replaced by fuel oil, when the cylinder knocks heavily.

32. (currently amended) A device for balancing the load in an internal combustion engine among the cylinders of the engine, which engine is provided with a cylinder specific antiknock control system, wherein the device comprises a balancing unit connectable to the cylinder specific antiknock control system, which device is adapted to execute a method comprising the steps of

monitoring each cylinder to find out whether the cylinder knocks continuously by utilising cylinder specific measuring data provided by the antiknock control system,

reducing the quantity of fuel supplied to a knocking cylinder permanently if the knock is continuous,

compensating the change in the total output of the engine caused by said reduction of fuel supply by increasing the fuel supply to the all cylinders of the engine,

storing the new cylinder specific fuel supply values, and

setting the new cylinder specific fuel supply values as cylinder specific set values of engine.

33. (previously presented) A device according to claim 32, wherein in the cylinder specific monitoring performed by the device it is counted how many times within a predetermined time period the cylinder specific antiknock control system needs to initiate an adjustment that endures at least one control period in order to reduce the quantity of fuel supplied to a knocking cylinder.

34. (previously presented) A device according to claim 33, wherein the time period, during which the times are counted, is 20-40 minutes.

35. (previously presented) A device according to claim 33, wherein the device defines a cylinder as continuously knocking, when a certain number of times is reached in the counting.

36. (previously presented) A device according to claim 34, wherein the certain number of times reached in the counting is 15-25 times.

37. (previously presented) A device according to claim 32, wherein in the compensation a balancing vector is used including cylinder specific fuel supply coefficients and the aim is to keep the vector sum at the balancing value or close to the balancing value, whereby the effect of the decrease of one coefficient is compensated by increasing the coefficients for the all cylinders.

38. (previously presented) A device according to claim 32, wherein the fuel is a gas.

39. (previously presented) A device according to claim 38, wherein in the engine, where besides a gas a fuel oil may be used as a fuel, the gas used by the engine is replaced by fuel oil, when the cylinder knocks heavily.

40. (currently amended) A computer program ~~connectable to the control system of an internal combustion engine, wherein the~~ product containing a computer program that is adapted to execute a method comprising the steps of: monitoring each cylinder to find out whether the cylinder knocks continuously by utilising cylinder specific measuring data provided by the antiknock control system, reducing the quantity of fuel supplied to a knocking cylinder permanently if the knock is continuous, compensating the change in the total output of the engine caused by said reduction of fuel supply by increasing the fuel supply to ~~the~~ all cylinders of the engine, storing the new cylinder specific fuel supply values, and setting the new cylinder specific fuel supply values as cylinder specific set values of engine, when the computer program is being run.